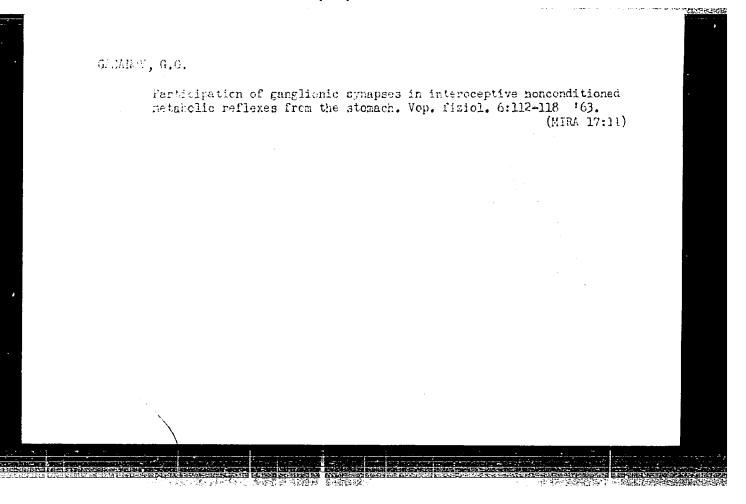
GASANOV, G.I.: KUDRYASHOV, Yu.B. Action of some toxic and radiominetic substances on yeast cells. Nauch. dokl. vys. shkoly; biol. nauki no.1:84-90 '65. (MIRA 18:2) 1. Rekomendovana kafedroy biofiziki Moskovskogo gosudarstvennogo universiteta.



GASANOV, G.G.

Mountain Gray-Brown soils of Fizuli District and the development of erosion processes in them. Izv. AM Azerb. SSE. Ser. biol. needing. 2:85-91 tol.

Snoonaitloned intercoeptive exchange reflexes from the stomach following extirpation of the signoid gyrus of the common cortex. Ibid.:103-114

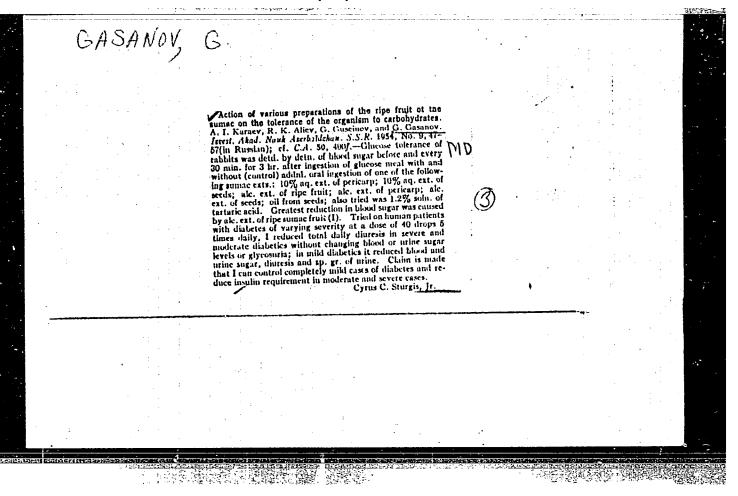
MINA 17:10)

DADASHEVA, T.D.; GASANOV, G.I.

Combined effect of a clogged filter and the bottom-hole zone on the productivity of oil wells [in Azerbaijani with summary in Russian]. Izv. AN Azerb. SSR. Ser.fiz.-tekh. i khim.nauk no.6: 91-98 '58.

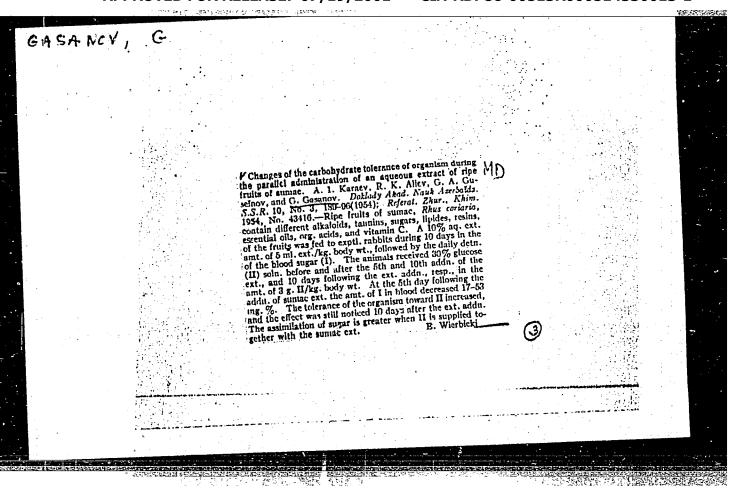
(Oil wells)

(Oil wells)



"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R000514330013-1



Interoceptors and metabolism. Dokl. AN Azerb. SSR 10 no.8:589-593 '54. (MIRA 8:10)

1. Institut zoologii Akademii nauk Azerbaydzhanskoy SSR. (Receptors (Neurology)) (Metabolism)

GASANOV, G. I.

GASANDV, G. I. - "The effect of various methods of mixing blood with preservative on certain biological changes in preserved blood following various periods of storage". Baku, 1955. Azerbaydshan State Medical Inst. (Dissertation for the degree of Candidate of Medical Sciences).

SO. Knizhnava Letopis! No. 46, 12 November 1955. Moscow

KARAYEV, A.I.; ALLIFEV, R.K.; GUSEYEOV, G.A.; GASAHOV, G.

Effect of extracts from certain plants in Axerbaijan on carbohydrate tolerance of the organism. Ixv.AN Azerb.SSR. no.9:63-72 S 155. (KLHA 9:1)

(Azerbaijan-Botany, Medical)

"APPROVED FOR RELEASE: 07/19/2001

CIA-RDP86-00513R000514330013-1

GASANOV, G.

Changes in the unconditioned interoceptive exchange reflexes from the stomach during various functional states of the cerebral cortex under conditions of perfusion [in Azerbaijani with summary in Russian].

Dokl. AN Azerb. SSR 14 no.1:71-74 '58. (MIRA 11:2')

(STOMACH—INNERVATION) (NARCOTICS) (CERMERAL CORTEX)

KARAYEV, A.I.; GASANOV, G.I.; KUZNETSOV, B.G.

Effect of radioactive phosphorus (P²²) on the course and nature of aseptic inflammation. Izv. AN Azerb. SSR. Ser. biol. i med. nauk (MIRA 14:9) no.5:119-124 '60.

(PHOSPHORUS-ISOTOPES) (INFLAMMATION)

GASANOV, G.I.; KUDRYASHOV, Yu.B.

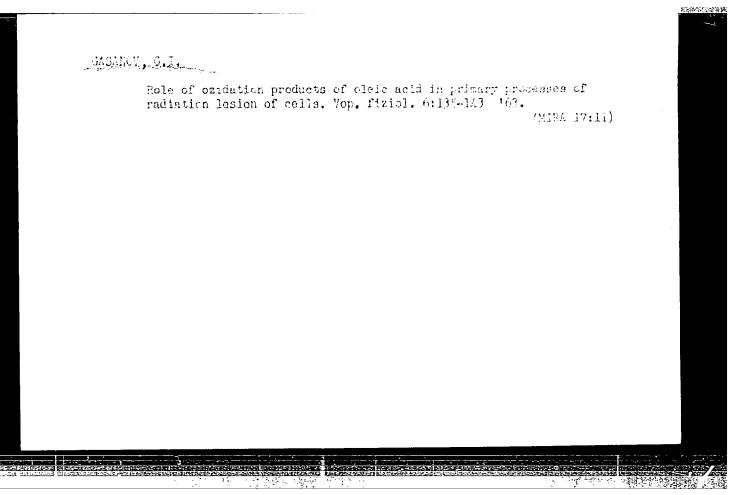
Toxic effect of intermediate products of oxidated cleic acid on yeast cells. Dokl. AN SSSR 143 no.6:1453-1454 Ap '62. (MIRA 15:4)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. Predstavleno akademikom N.M.Sisakyanom. (Oleic acid--Toxicology) (Yeast)

Role of oxygen in the effect of a radiomimetic substance

(oxidized oleic acid) on yeast cells. Dokl. AN SSSR 144 no.2:443-445 My 162. (MIRA 15:5)

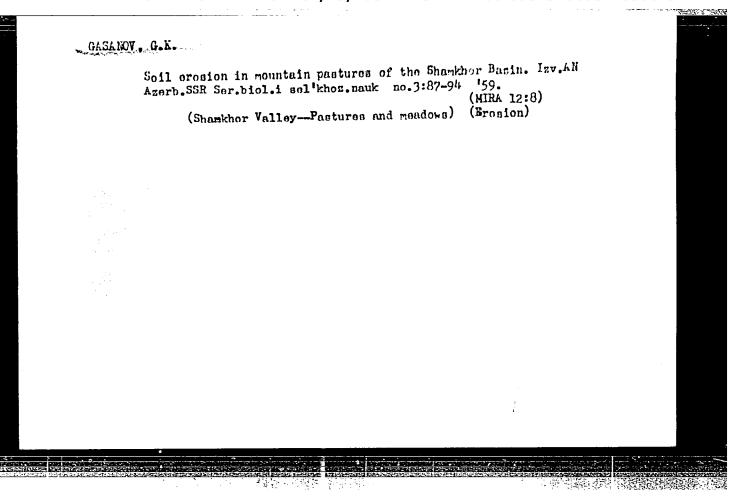
l. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. Predstavleno akademikom A.I.Oparinym.
(Oleic acid) (Yeast) (Oxygen)

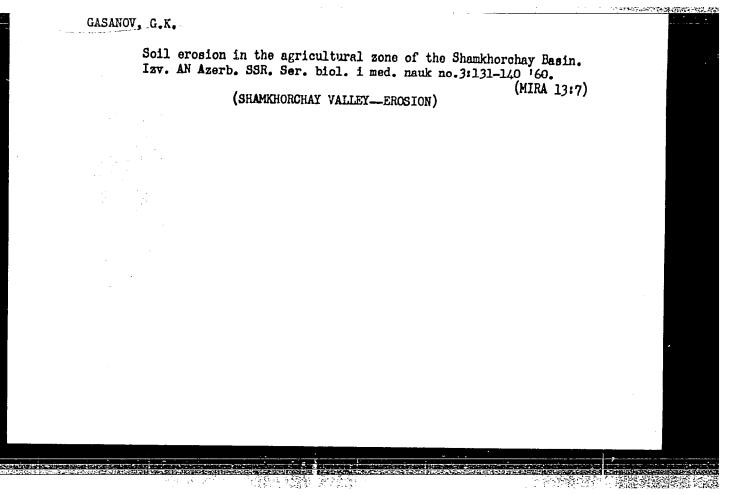


GASANOV, G.I., inch.

[rrigation of sugar beets in Daghestan. Gidr. 1 mel. 17
no.8:1-7 Ag '65. (MIRA 18:10)

1. Dagestanskiy nauchno-issledovatel'skiy institut sel'skogo khozyaystva.





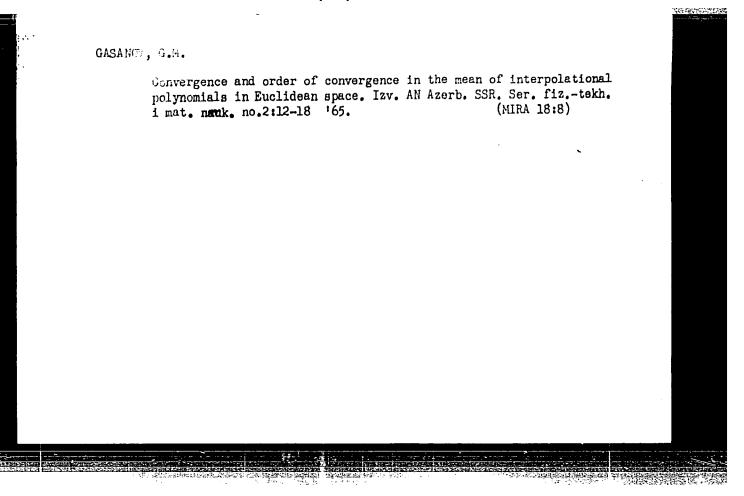
GASANOV, G. K.

Cand Agr Sci - (diss) "Frosion of soils in the Shamkhorchay River Basin and measures for combating it." Baku, Pub. Academy of Sciences Azerbaydzhan SSR, 1961. 24 pp; (Ministry of Agriculture Georgian SSR, Georgian Order of Labor Red Banner Agricultural Inst); 200 copies; free; (KL, 6-61 sup, 231)

GASANOV, G. M.

Gasanov, G. M.: "On closing large gunshot defects of the cranium," (Report), Trudy III Zakavkazsk. s"yezda khirurgov, Yerevan, 1948 (on cover: 1949), p. 425-435

SO: U-5240, 17 Dec. 53, (Letopis 'zhurnal 'nykh Statey, No. 25, 1949).



Compression of a viscous-plastic layer by circular plates. PMTF no.5:88-90 S-0 '61. (NIRA 14:12)

(Deformations (Mechanics))

(Plasticity)

S/207/62/000/005/004/012 B108/B186

10,200

Casanov, G. T., Mirzadzhanzade, A. Kh. (Baku)

AUTHORS: TITLE:

Solutions of the inverse problems of the unsteady motion of

a viscoplastic liquid

PERIODICAL:

Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 5,

1962, 117-120

TEXT: Exact solutions for the unsteady motion of the "core" of flow of a viscoplastic liquid were obtained by A. I. Safronchik (PMM, 1059, v. 23, nos. 5,6). The determination of the quantity x lead to a non-linear

integral equation of the Volterra type. The solution can be found more easily if the inverse problem is considered, i.e. if the variation of the extension of the core of flow is given as a function of time and the velocity of the motion corresponding to that variation is sought. For the case of an incompressible viscoplastic liquid flowing between two plane parallel plates, and through a straight cylindrical tube, this problem, as well as various boundary and initial conditions, are solved both for

Card 1/2

Solutions of the inverse problems...

S/207/62/000/005/004/012 B108/B186

 $x_0(t) = \alpha \sqrt{t}$ and for $x_0 = const.$

SUBMITTED: May 5, 1962

Card 2/2

S/249/62/018/010/002/004 D234/D308

AUTHOR: Gasanov, G. T.

TITLE: Non-stationary motion of a viscous-plastic liquid be-

tween two cylinders

PERIODICAL: Akademiya nauk Azerbaydzhanskoy SSR. Doklady, v. 18,

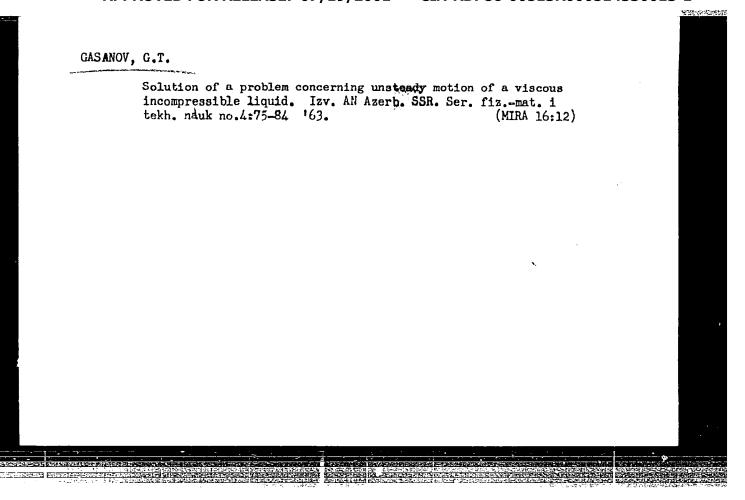
no. 10, 1962, 21-25

TEXT: The motion is assumed to be rectilinear and the cylinders coaxial. The author quotes the differential equations of the problem and gives their solutions (obtained by Kolodner's method applied by A. I. Safronchik to axially symmetrical problems). There are two systems of equations for determining the radii of the cores. One of these is given by the author: it is non-linear and of Volterra's type.

ASSOCIATION: AZNII po D/n

SUBMITTED: July 6, 1962

Card 1/1



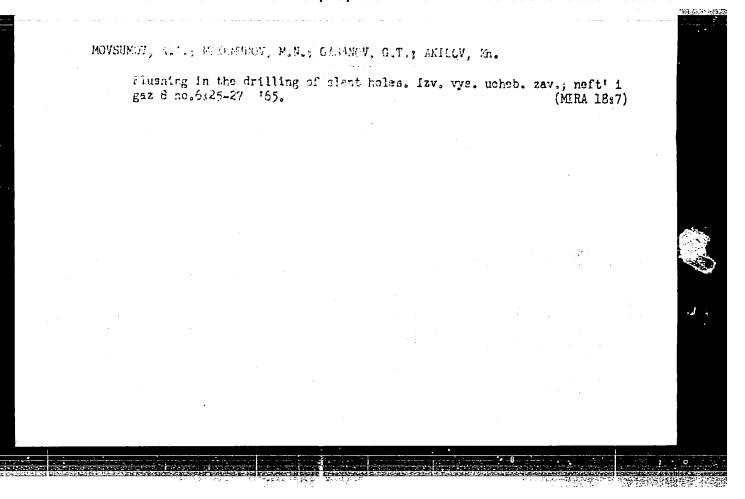
GASANOV, G.T.; MOVSUMOV, A.A.; ZARGARLY, Kh.F.

Cleaning the borehole of drilled-out rocks. Izv.AN Azerb.SSR.
Ser.geol.-geog.nauk no.1:85-90 165.

(MIRA 18:8)

MAKHMUDOV, R.N.; MOVSUMOV, A.A., GASANOV, G.T.

Determining the pressure-gradient module of the oil, gas, and water yield of heds developing during well drilling. Izv. vys. ucheb. zav.; neft' i gaz. 8 no.5433-37 '65. (MIRA 18:7)

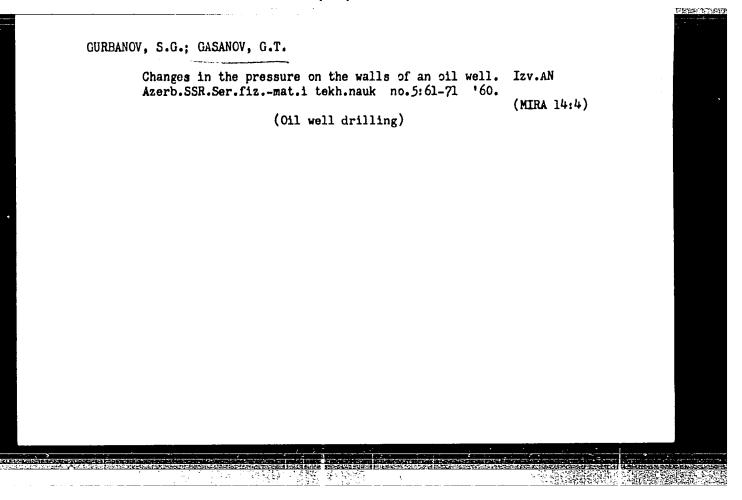


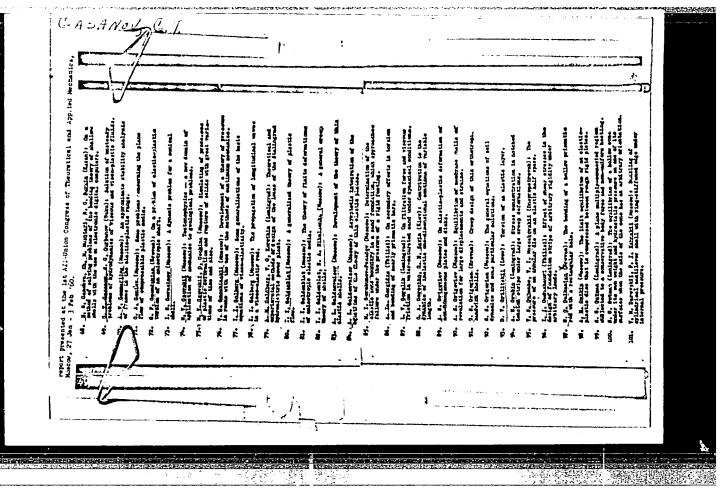
GASANOV, Gureyn Geydar-ogly

Role of the posterior limbic cerebral cortex in interoceptive unconditioned metabolic reflexes of the stomach. Dokl. AN SSSR 159 no.6:1427-1430 D 164 (MIRA 18:1)

1. Institut fiziologii im. I.P. Pavlova AN SSSR i Sektor fizic-logii AN AzerSSR. Predstavleno akademikom V.N. Chernigovskim.

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R000514330013-1"





SEID-RZA, M.K.; MOVSUMOV, A.A.; GASANOV, G.T.; SHIKHALIYEV, F.A.

Determination of the change in the hydrodynamic pressure on well walls in lowering the drilling tool and casing. Izv. vys. ucheb. zav.; neft' i gaz 6 no.4:29-32 '63. (MIRA 16:7)

l. Azerbaydzhanskiy institut nefti i khimii imeni M. Azizbekova i Azerbaydzhanskiy nauchno-issledovatel'skiy i proyektnyy institut po bureniyu neftyanykh i gazovykh skvazhin.

(Pressure) (Oil wells)

GASANOV, G.T.; EL'DAROV, T.R.

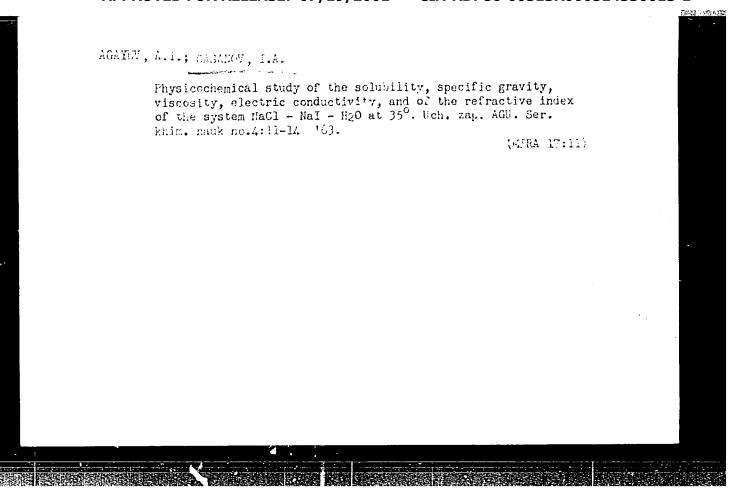
Solution of the problem of the nonsteady flow of a viscous incompressible fluid and the relation of this problem to the determination of the hydrodynamic pressure on well walls when the drilling tool is being lowered into the well. Izv. vyc. ucheb. zav.; neft' i gaz 6 no.7:17-23 '65. (MIR. 17:8)

1. Azerbaydshanskiy institut nefti i khimii imeni Azızbekova i AzHI(Burneft'.)

GASANOV, G.T.; MOVSUMOV, A.A.; ZARGARLY, Kh.F.

Transporting capacity of clay mud in drilling. Neft. knoz. 42 no.6:
17-20 Ag '64.

(MIRA 17:9)

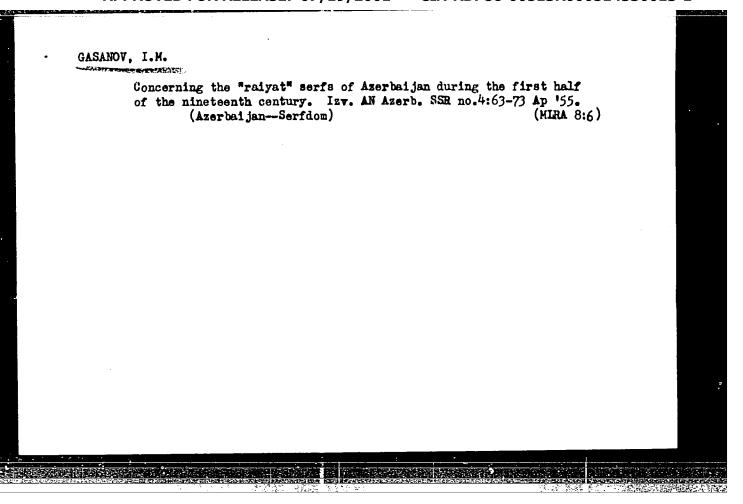


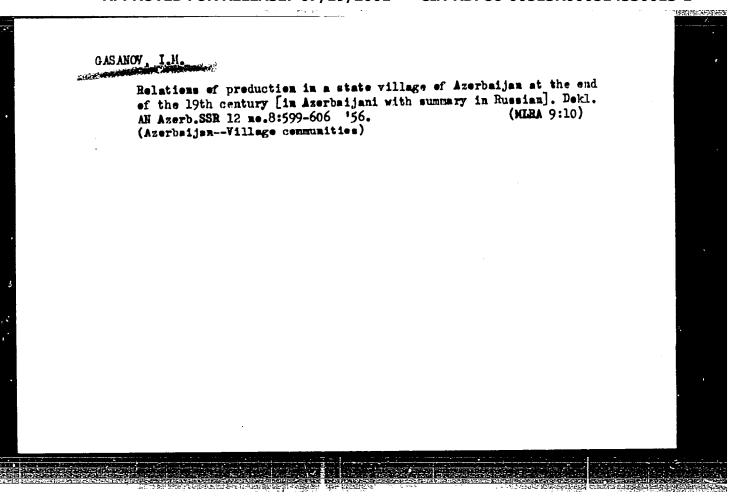
Practice of using gas and ors in fields of the Oil Field Administration of the Artem Petroluam Trust. Azerb. neft. khoz. 40 no.10:
31-32 O '61. (MIRA 15:3)

(Artem Island--Oil wells--Fquipment and supplies)

GABANOV, I. M. "Using maphthalene oil to treat osteomalacia in larme horned cattle", Izvastiya Azerlaydzh, s.-kh. in-ta ia. Beriya, No. 3, 1946, p. 43-86, (In Azerbaijani, resume in Russian).

50: U-4393, 19 August 53, (Letopis 'Zhurnal 'nykh Statey', No. 22, 1949).





GASANOV, I.M.; PETRUSHEVSKIY, I.P., redektor; ACAYEVA, Sh., tekhnicheskiy
redektor
[Peasent landowners in Aserbaijan during the first half of the 19th
century] Ghastnovladel'cheskie krest'iane v Aserbaidshane v pervoi
polovine XIX veks. Baku, Izd-vo Akad.nauk Azerbaidshanekoi SSR,
1957. 233 p. (MIRA 10:9)
(Aserbaijan--Land tenure--History)
(Aserbaijan--Peasentry)

ZAKARYAN, M.R., inzh.; GASANOV, IţM., inzh.; PAPIYAN, R.F., agronom

Testing SNU-48 mounted narrow-row grain drills. Trakt. i sel'khosmash. 31 no.1:28 Ja '61. (MIRA 14:1)

1. Zatavkazskaya Gosudarstvennaya mashinoispytatel'naya stantsiya.

(Drill (Agricultural machinery))

GASANOV, I. M. and LYATIFOV, D. KH. (Assistant Professor and Staff Physician) (Azerbaidzhan SKHI)

"Treatment of the malignant catarrhal fever in water buffalo with biomycin"

Veterinariya, Vol. 38, no. 10, October 1961, pp. 81-89

GASANOV, I.S.; GANBAROV, Yu.G.

Recent data on the tectonics of the southeastern part of the Baku Archipelago. Azerb. neft. khoz. 39 no.1:4-7 Ja '60. (MIRA 14:8)

(Baku Archipelago--Geology, Structural)

5/169/62/000/006/049/093 D228/D304

AUTHORS:

Gasanov, I. S. and Guseynov, A. M.

TITLE:

Trial application of an aerial gamma-survey in Azer-

baydzhan

PERIODICAL:

Referativnyy zhurnal, Geofizika, no. 6, 1962, 35, abstract 6A266 (Sb. nauchno-tekhn. inform. Azero. n.-i. in-t po dobyche nefti, no. 3 spets., 1961, 26-36)

TEXT: The trial employment of an aerial gamma-survey for seeking oil and gas fields is described. A description is given of the apparatus, the procedure, and the interpretation which allowed decreases of 0.5 - 1.5 in the f-radiation intensity to be distincted when the total range of the f-field's variation was 0 -10 r. It is proposed that airborne radiometric surveying should be used only to check a regional f-field survey. In order to clarify the nature of anomalies, exposed by aerial gamma-surveying, it is recommended that ground radiometric surveying should be included in the following complex of investigations: field geochemical

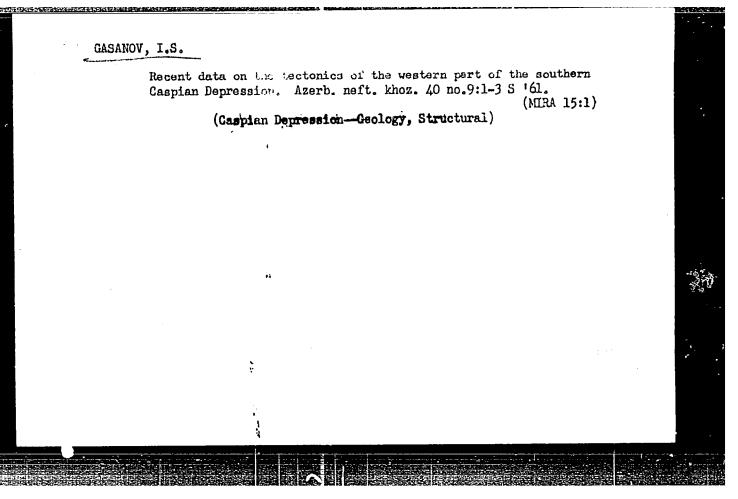
Card 1/2

Trial application of ...

S/169/62/000/006/049/093 D228/D304

surveys; and laboratory determinations of the radioactivity, the absorption capacity and the content of carbonates and various chemical elements in the rocks and soils, forming the surface of anomalous areas. / Abstracter's note: Complete translation. /

Card 2/2



APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R000514330013-1"

8/035/62/000/008/079/090 A001/A101

AUTHORS:

Gadzhiyev, R. M., Gasanov, I. S., Shapirovskiy, N. I.

TITLE:

New techniques and methods of marine gravimetric investigations

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 8, 1962, 25, abstract 8G218 ("Novosti neft. i gaz. tekhn. Geologiya", 1961, no. 4; 30 - 31) Referationly zhurnel, Geofizita, no. 5, 1962, 21-22, abstract 5A157

The method of marine gravimetric observations without anchoring the vessel is described. This method became possible as a result of time reduction necessary for measurements at the expense of eliminating interactions in electric circuits of the AFRE (DGFYe) gravimeter; this was achieved by separate feeding the circuits of thermostat and reading device. When the ship moves from one observational point to the other, the gravimeter is not set on the deck, but is suspended to a crown beam mounted on the deck in the stern part of the ship. Lifting and sinking operations are conducted by one technician from the panel board. A small number of reference-knot points are established, fixed reliably by bearons on the sea. Drifting of gravimeter zero is taken into account by observations at the reference-knot points. The employment of the anchorless method of

Card 1/2

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New tecnniques and m	ethods of.	S/035/62/000/008/079 /09 0 A001/A101					
observations makes i During one working d rms error of one mea being 1 point per 9	lay, observ Isurement e	ations at 15	- 20 poir	its can be per	formed with a	⊻.	
			•	Yu. Yuro	v	† 1	
[Abstracter's note:	Complete	translation]			·		
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APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R000514330013-1"

ACCESSION NR: AR4008228

s/0169/63/000/011/D023/D023

SOURCE: RZh. Geofizika, Abs. 11D134

AUTHOR: Tereshko, D. L.; Gadzhiyev, R. M.; Gasanov, I. S.

TITLE: Marine gravimetric operations

CITED SOURCE: Sb. Geofiz. izuch. geol. stroyeniya neftegazonosn. obl. Azerbaydzhana, Baku, Azerb. gos. izd-vo, 1963, 58-64

TOPIC TAGS: gravimetry, marine gravimetry, marine gravimetry history, pendulum survey, Apaheron peninsula gravimetry, geophysical instrument, marine gravimetric survey

TRANSLATION: The authors describe the history of marine gravimetry, starting with the pendulum survey of 1930 of the route from Baku to the Kura River delta. Prior to 1954, this work was basically of an experimental character. Its aim was to test and master Soviet equipment and to develop techniques of marine surveying using this apparatus; at the same time, the goal was to have the aquatorial around the Apsheron Peninsula covered by an area survey with an average density of 1 point Card 1/2

ACCESSION NR: AR4008228

per 10-12 km². A small bottom gravimeter began to be used in 1956. An anchorless conservational technique has been in use since 1958. By the end of 1959, gravimetric surveys covered the entire aquatorial of the Baku Archipelago down to a depth of 100-200 m to the east and up to the national boundary on the south for an area of about 9 thousand km². The grid density is 1 point per 8-10 km² on the average; the mean square error per measurement is from ± 0.3 to ± 0.7 mgal. The latest surveys were used to construct a map of Bouguer anomalies with isolines over 2 mgal, constructed in conformance to the map of the adjacent land. Bottom gravimetry operations continued in 1960 in the southern part of the Apsheron Peninsula, between Makarov Bank and Neftyany*ye Kamni. In the future, the intention is to survey the entire Apsheron shelf, as well as to continue the survey to the south of the Apsheron Peninsula all the way to the Dagestan border. I. Yesakov.

DATE ACQ: 09Dec63

SUB CODE: AS

ENCL: 00

Card 2/2

SIMON, K.; GORINOVA, M.; KOLESOV, V.; SANDOMIRSKIY, V.; GASANOV, K.

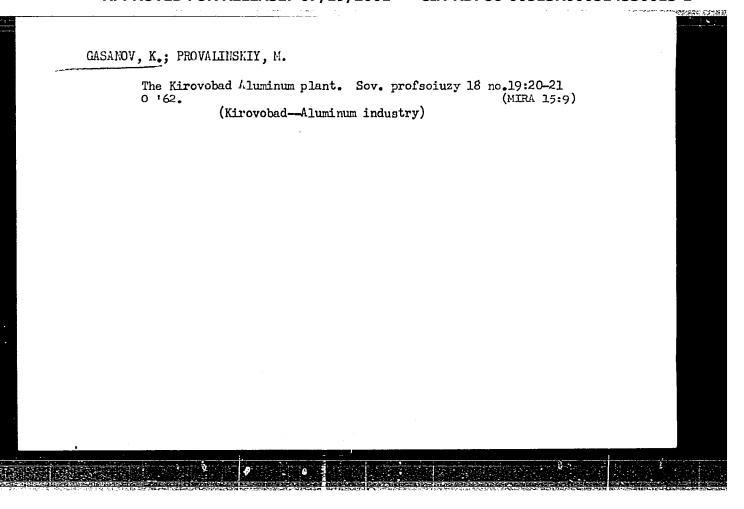
Commodity experts reply. Sov.torg. 35 no.7:50-54 Jl '62.

(MIRA 15:11)

1. Zaveduyushchiy sektsiyey torgovoy bazy Rostekstil'torga, Abakan
(for Simon). 2. Tovaroved torgovoy bazy Rostekstil'torga, Abakan
(for Gorinova). 3. Zaveduyushchiy torgovym otdelom Yoreveyevskogo
sel'skogo potrebitel'skogo obshehestva, Vologodskaya obl. (for
Kolesov). 4. Zamestitel' direktora magazina No.16 "Diyeticheskoye
produkty", Khar'kov (for Sandomirskiy). 5. Glavnyy tovaroved
optovoy bazy Azerbobuv'torga, Baku (for Gasanov).

(Commerce)

(Commerce)



Dissertation: "Delirium Tromens and Its Clinical Variants in Legal Psychiatric Practice." Cand Red Sci, Central Inst for the Advanced Training of Physicians, 18 May 54. Vechernyaya Noskva, Noscow, 7 Nay 54.

SO: 5UN 284, 26 Nov 1954

Doc Hed Sci -- "Clinic of acute alcoholic psychoses." Baku, 1960 (Min of Health USSR. Cantral Inst for the Advanced Training of Physicians). (KL, 1-61, 204)

-338-

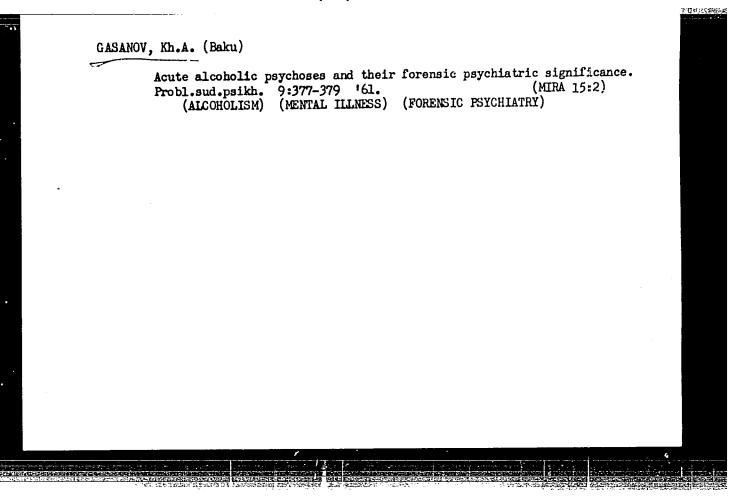
Clinical aspects and forensic psychiatric evaluation of rapidly developing alcoholic paranolas. Med. zhur. Uzb. no.1:61-65 Ja '61. (MIRA 14:6)

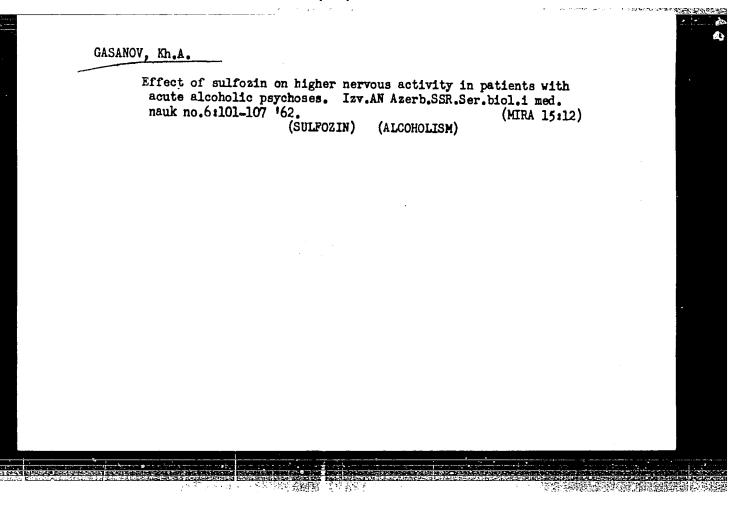
1. Sudebnoy psikhiatr Ministeratva zdravookhraneniya Azerbaydzhanskoy SSR. (PARANOIA) (ALCCHOLISM AND CRIME)

Comparative evaluation of some variants in the treatment of acute alcoholic psychoses. Azerb. med. zhur. no. 5:25-30 My '61.

(MENTAL ILLNESS) (ALCOHOLISM)

(MENTAL ILLNESS)





GASANOV, Kh.A.; ALEKPEROV, I.I.; TER-BAGDASAROVA, I.K.

Rare case of acute radiation sickness with neuropsychic disturbances. Izv.AN Azerb.SSR. Ser.biol.i med.nauk no.4:111-115 '63. (MIRA 17:4)

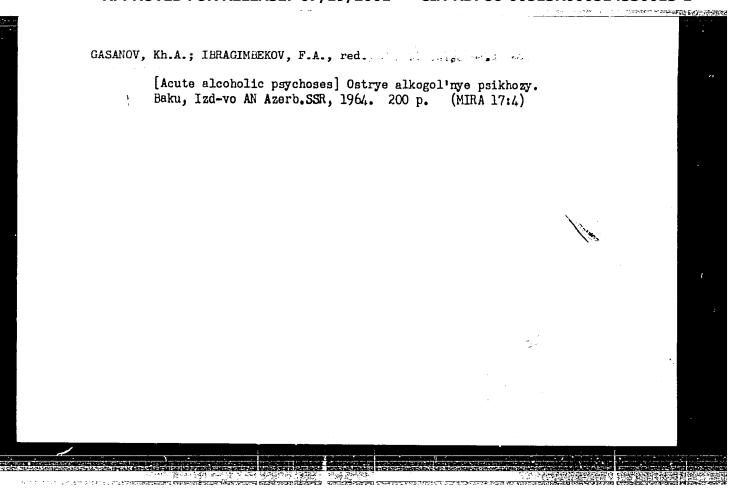
Review of the literature on experimental studies of the pharmacological properties of aminazine and other preparations of the phenothiazine series. Azerb.med.zhur. 40 no.1:3-9 Ja '63. (PHENOTHIAZINE) (MIRA 16:3)

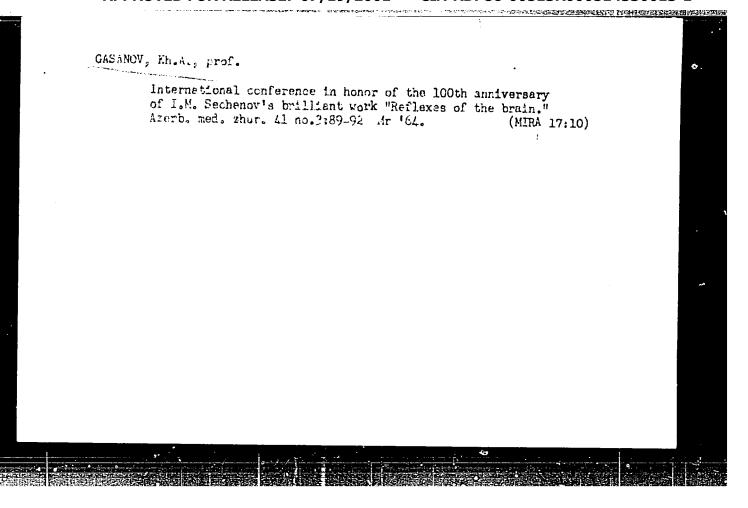
EFENDIYEV, F.A., red.; ABDULAYEV, D.M., red.; MAMEDOV, Z.M., red.; GUSEYNOV, D.Yu., red.; GASANOV, Kh.A., red.; RZAYEV, N.M., red.; RERIMOV, G.M., red.; ABDULLAYEV, M.M., red.

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[Problems of cardiovascular and endocrine pathology] Voprosy serdechno-sosudistoi i endokrinnoi patologii. Baku, Izd-vo AN Azerbaidzh.SSR, 1964. 195 p. (MIRA 17:12)

1. Azerbaidzhanskiy institut eksperimental'noy i klinicheskoy meditsiny.





GASANOV, Kh.B., kand.wod.nauk, KULIYEV, A.A.

Occupational therany in a subruban psychoneurological hospital.
Azerb.med.zhur. no.4:91-92 Ap '58 (MIPA 11:7)

1. Iz 3-y psikhonevrologicheskoy bol'nitsy gor. Baku (glav-vrach
A.A. Kuliyev).

(PSYCHOTHERAPY)

(OCCUPATIONAL THERAPY)

USSR/Human and Animal Physiology - The Nervous System. : Ref Zhur Biol., No 3, 1959, 13258 Experimental Data on Patho-Physiological Disturbances Abs Jour of the Higher Nervous Activity in Delirium Tremens Author Probl. sudebn. psikhiatrii. Sb. 7, M. Gosyurizdat, Inst Title 1957, 282-303 Characteristics of typical and psychotic-induced deli-Orig Pub rium tremens in patients in the acute period of illness are the presence of phase states in the primary signal. system, obsence of sufficient work reactions to an es-Abstract tablished connection, prolongation of the latent period, and echolalic responses in speech experimentation. The pschotic form is distinguished from the typical by slow recovery of neurodynamic displacements, which are manifested in weakness of internal _ 118 -Card 1/2

USSR/Human and Animal Physiology - The Nervous System.

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Abs Jour

: Ref Zhur Biol., No 3, 1959, 13258

inhibition and slight internal retardation on recovery from the acute psychotic state. -- T.G. Beteleva

Card 2/2

GASANOV, K. K.

Cand Phys-Math Sci - (diss) "Solution of mixed tasks for quasi-linear hyperbolic and parabolic equations." Baku, 1961. 10 pr; (Committee of Higher and Secondary Specialist Education of the Council of Ministers Azerbaydzhan SSR, Azer State Univ imeni S. M. Kirov); 150 copies; price not given; bibliography on pp 9-10 (14 entries); (KL, 7-61 sup, 218)

KHUDAVERDIYEV, K.I.; GASANOV, K.K.

Use of the method of wave regions in solving a one-dimensional mixed problem for quasilinear hyperbolic equations of the second order. Uch. zap. AGU. Ser. fiz.-mat. nauk no.1:3-9 *63 (MIRA 18:1)

34578 5/044/62/000/001/024/061 11.3500 C111/C444 Gasanov. K. K. AUTHOR: The solution of the mixed problem for an differential equation of the hyperbolic type with a non-linear part TITLE: by the Fourier method Referativnyy zhurnal, Matematika. no. 1. 1962. 43-44, abstract 1B217 ("Uch. zap. Azerb un-t, Ser. fiz.-matem PERIODICAL: i khim. n., n 1960. no. 4, 29-37) Considered is the equation TEXT: $\frac{\partial^2 z}{\partial z^2} = Lu + \lambda f (t, x, u),$ (!)where Lu $= \frac{c}{\sum_{i=1}^{n} \frac{\partial}{\partial x_i}} \left(a_{1,j}(x) - \frac{\partial u}{\partial x_j} \right) - a(x)u$ is an operator, the sceffiments of which are defined in a finite connected domain [] of $x = (x_1, x_2, \dots, x_n)$, in $\tilde{\Omega}$ satisfying the conditions Gard 1/5

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By aid of the Fourier method the existence and the uniqueness of the solution of the given problem is proved.

First of all one considers the system of non-linear integral equations

$$A_{s}(t) = \frac{\lambda}{\lambda_{s}} \int_{0}^{t} \int_{\Omega} f\left(\tau, x, \sum_{m=1}^{\infty} A_{m}(\tau) v_{m}(x)\right) \times v_{s}(x) \sin \lambda_{s}(t-\tau) d\Omega d\tau + c_{s}(t), s = 1, 2, \dots$$
 (3)

where v_s are the eigenfunctions of L. Let $B_2(0,1)$ be the space of the functions $A(t) = \{A_s(t)\}$ which satisfy the condition

$$\sum_{s=1}^{\infty} \left[\lambda_{\max}^{2} \right] \left[ds(t) \right]^{2} < \infty$$

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The solution of the mixed problem ...

and have the norm

have the norm
$$\|A(t)\| = \left(\sum_{s=1}^{\infty} \left[A_s(t) \right]^2 \right)^{1/2}$$

Then the following theorems hold:

Theorem 1: Let $c(t) = \{c_s(t)\} \in B_2(0,1)$ and f(t,x,u) satisfy in R the conditions: 1) $f(t,x,0) \in D_1^0(Q_1)$ 2) f(t,x,u) has partial derivatives with respect to x_i , and it is

$$| f'_{x_{i}}(t,x,u) - f'_{x_{i}}(t,x,v) | \leq b_{i}(t,x) | u-v |,$$

$$| f'_{u}(t,x,u) - f'_{u}(t,x,v) \leq b(t) | u-v |,$$

$$b_{i}(t,x) \in L_{2}(Q), b(t) = \sup_{x \in \Omega} f_{u}^{i}(t,x,0) \in L_{2}(0,t)$$

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Then (3) possesses a unique solution in $B_2(0,1)$ for sufficiently small λ . Theorem 2: If $P \in W_2^{(2)}(\Omega)$, $P_P : P \in D^{\circ}(\Omega)$ and if f(t,x,u) satisfies the conditions of theorem 1 then for sufficiently small λ there exists a solution of the mixed problem.

Theorem 3: If there holds in R_1 :

1) f(t,x,u) measurable with respect to t, x for all u;

2) $f(t,x,u) - f(t,x,v) = L_2(t) + L_2(t)$;

then the mixed problem does not possess more than one solution almost everywhere

[Abstracter's note: Complete translation.]

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AUTHOR:

Gasanov, K. K. TITLE:

The solution of the mixed problem for a quasilinear equation of the hyperpolic type by aid of the Fourier-

method

Referativnyy zhurnal, Matematika, no. 1, 1962, 44, PERIODICAL:

abstract 1B218. ("Uch. zap. Azerb. un-t. Ser. fiz.-

matem. i khim. n," 1960, no. 5, 13-23)

By the method of Fourier it is proved that the problem TEXT:

 $\frac{\partial^2 u}{\partial t^2} = Lu + f(t,x,u),$

 $\begin{bmatrix} u \\ t=0 \end{bmatrix} = \varphi(x), \quad \frac{\partial u}{\partial t} \end{bmatrix}_{t=0} = \varphi(x),$

 $u \mid_S = 0$,

in the cylinder $Q_1 = \Omega \times [0 \le t \le 1]$, $1 < \infty$ possesses a solution. Here Ω is an arbitrary, n-dimensional domain of the x = (x_1, x_2, \dots) Card 1/4

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... x_n). S is the boundary of Ω ; Ψ (x) and Ψ (x) are given in Ω ; f(t,x,u) is defined in $G = Q_1 \times (-\infty \times u \times \infty)$; the self-adjoint operator

Lu =
$$\sum_{i,j=1}^{n} \frac{\partial}{\partial x_{i}} \left(a_{ij}(x) \frac{\partial u}{\partial x_{j}} \right) - a(x) u$$

i, j=1 - is elliptic, i. e. $a_{ij}(x)$, a(x) satisfy the conditions

$$a(x) \ge 0$$
, $a_{ij} = a_{ji}$, $\sum_{i,j=1}^{n} a_{ij} \xi_{i} \xi_{j} > \infty$ $\sum_{j=1}^{n} \xi_{i}^{2}$ (4) $\infty = \text{const} > 0$

The following theorems are proved:

Theorem !: Let Ω be an arbitrary bounded connected domain, the coefficients $a_{ij}(x)$ and a(x) be measurable and bounded in Ω and satisfy (4).

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If 1.) $\varphi(x) \in B(\Omega), \Psi(x) \in L_2(\Omega)$.

2.) f(t,x,u) is measurable with respect to t, x for all u, continuous with respect to u for almost all t,x in Q_1 , and satisfying the condition $|f(t,x,u)| \leq b(t)|u| + b(t,x), b(t) \in L_2(0,1),$

 $b(t,x) \in L_2(Q_1),$

then the mixed problem possesses at least one generalised solution.

Theorem 2: Let Ω be an arbitrary normal three-dimensional domain which together with the boundary S is contained in a certain open domain C; let $a_{ij}(x) \in C^{(1,\mu)}$; $a(x) \in C^{(3,\mu)}(\mu > 0)$; (4) be satisfied If 1.) $a_{ij}(x)$ possess continuous derivatives in $\overline{\Omega}$ up to the second

order, and a(x) has a continuous derivative of first order

2,) $\varphi(x) \in W_2^{(4)}(\Omega)$, $\Psi(x) \in W_2^{(3)}(\Omega)$ and $\varphi(x)$, $L\varphi(x)$. $\Psi(x)$ LΨ (x) ∈ Β (Ji)

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The solution of the mixed problem ...

3.) f(t,x,0), $Lf(t,x,0) \in D_1^0(Q_1)$

f(t|x,u) possesses partial derivatives with respect to x,u up to the third order inclusively, and satisfies the conditions

$$|f(t,x,u)| \leq b(t) |u| + b(t,x)$$

 $|f^{i}u(t,x,u)| \le b_{4}(t)|u| + b_{4}(t,x)$

while the other derivatives satisfy conditions of the type

$$\left| \begin{array}{ccc} f^{i+1} & (t,x,u) \end{array} \right| \leq b_{\underline{i}}(t,x) \phi_{\underline{i}}(u) + \overline{b_{\underline{i}}(t,x)} ,$$

where

$$b(+)$$
, $b_4(t) \in L_2(0,1)$; $b(t,x)$, $b_4(t,x)$, $b_1(t,x) \in L_2(Q_1)$

 $d_{\mu}(u)$ being bounded for bounded u, then the mixed problem possesses at least one classical solution.

Abstracter's note: Complete translation.

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\$/020/63/148/004/004/025 16.351 B172/B180 Guseynov, A. I., Gasanov, K. K. AUTHORS: Applicability of Fourier's method to the solution of a mixed TITLE: problem for a certain class of quasilinear hyperbolic equations Akademiya nauk SSSR. Doklady, v. 148, no. 4, 1963, 761 - 764 PERIODICAL: The equation $\frac{3^2u}{3t^2} = Lu + f(\lambda, t, x, u, u_t, u_t, u_x)$ with the initial conditions $u \Big|_{t=0}^{\infty} = \varphi(x), \frac{\partial u}{\partial t} \Big|_{t=0} = \psi(x)$ and the boundary condition $u|_{S} = 0$ is considered in a domain Ω with the boundary S_{1} λ is a parameter and L is a linear self-adjoint operator of the form $\frac{\partial}{\partial x_{i}} \left(a_{i,j}(x) \frac{\partial u}{\partial x_{i}}\right) - a(x)u, \text{ where } a(x) \ge 0, a_{i,j}(x) = a_{j,i}(x);$ $\bar{a}_{ij}(x)\xi_{i}\xi_{j} \ge x\sum_{i=1}^{2}\xi^{2}_{i}$, x = const > 0. A number of theorems are formu-

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Card 1/2

Applicability of Fourier's method ...

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lated concerning the existence and uniqueness of generalized solutions, "almost universal" solutions, and classical solutions. Former papers are cited (K. K. Gasanov, Uch. zap. Azerb. gos. univ., ser. fiz.-matem. i. khim. nauk, no. 3, 47 (1960); no. 4, 29 (1960); no. 5, 13.(1960)) as proofs.

ASSOCIATION: Azerbaydzhanskiy gosudarstvennyy universitet im. S. M. Kirova (Azerbaydzhan State University imeni S. M. Kirov)

PRESENTED:

August 1, 1962, by I. N. Vekua, Academician

SUBMITTED:

July 30, 1961

Card 2/2

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Applicability of Fourier's method to the solution of a mixed

problem for a certain class of quasi-linear hyperbolic equations.

Dokl.AN SSSR 148 no.4:761-764 F '63. (MIRA 16:4)

1. Azerbaydzhanskiy gosudarstvennyy universitet im. S.M. Kirova. Prefetavleno akademikom I.N.Vekua. (Differential equations)

S/044/63/000/002/022/050 A060/A126

AUTHOR:

Casanov, K.K.

TITLE:

On the solution of the first boundary problem for a quasilinear

parabolic equation

PERIODICAL:

Referativnyy zhurnal, Matematika, no. 2, 1963, 47 - 48, abstract 2B211 (Uch. zap. Azerb. un-t. Ser. fiz.-matem. i khim. n., 1962,

no. 2, 25 - 35)

TEXT: The author investigates the existence, uniqueness and the differential characteristics of various solutions (generalized almost everywhere, and classical) for a quasilinear parabolic equation of the form:

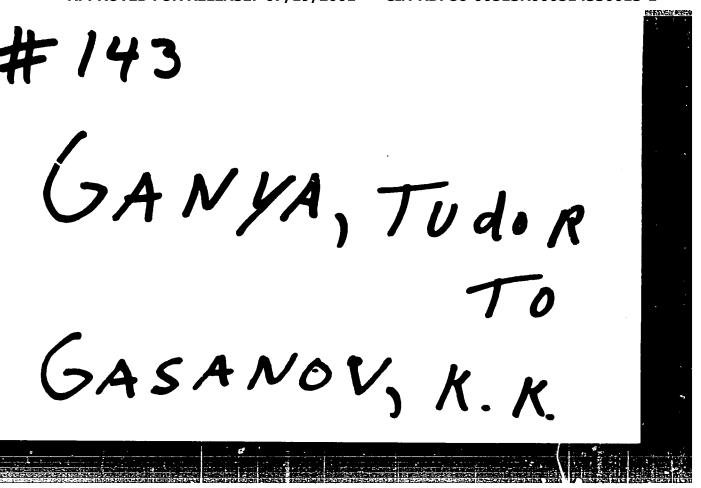
 $\frac{\partial u}{\partial t} = Lu + f (t, x, u_1, u_{X_1}, \dots, u_{X_n}),$

 $u|_{t=0} = \varphi(x)$, $u|_{S} = 0$, as a function of the properties of the function f(t, x, u, ...) and of other data, where S is the boundary of an arbitrary bounded n-dimensional domain Ω , L is a linear selfconjugate operator

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On the sc	olution of the	first boundar	ry	A060/A1	26	150
		· · · · a	, a.,			•
, i	L	$u = \sum_{i,j=1}^{n} \frac{\partial}{\partial x_i}$	$(a_{1j}(x)\frac{\partial u}{\partial x_{j}})$) - a (x) u,		
whose coe	fficients sat	isfy in the do	omain Ω the	conditions '	• •	
a (x)≥0. a., (r) - a (m).	n,	<u>n</u>	3	
	, - 0, 21) (c) = aji (x);	1, J=1 aij 5i	$\xi_j > \alpha \sum_{i=1}^n \xi$	1,	
where or	= const > 0.					
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